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EXAMINER	
GWARTNEY, ELIZABETH A	

ART UNIT	PAPER NUMBER
1781	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/560,936	Applicant(s) TAKAHASHI ET AL.	
	Examiner ELIZABETH GWARTNEY	Art Unit 1781	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20100218</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 18, 2010 has been entered.
2. Claims 14-28 are pending.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 14-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 14 and 22, while there is support in the specification for step (c) including "removing not less than about 50% of the particles of about 1 μ m or more in diameter from the powdered tea to obtain a ground tea dispersion", there is no support for the negative limitation wherein step (c) is completed "without adding an antioxidant prior to removing the particles."

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Note, negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 14-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yutaka et al. (JP 08-116881-PAJ Abstract, machine translation, Partial English Translation-provided by applicants) in view of Yoshiyuki et al. (JP 11-276074 – PAJ Abstract, machine translation).**

Regarding claims 14-15 and 18, Yutaka et al. disclose a method for producing a tea beverage comprising the steps of (a) pulverizing tea leafs to obtain ground tea having particles the size of 125 μm or less; (b) suspending the ground tea in water at a density of 5%; (c) subjecting the ground tea with a high pressure-homogenizer, i.e. further grinding, to provide an ultrafine powder tea; and including the ultrafine powder tea as component in a tea drink (Abstract, [0019], [0030], [0032]-*partial English translation*). Yutaka et al. does *not* disclose adding an antioxidant to the homogenized tea.

Yutaka et al. does not disclose removing not less than about 50% of the particles of about 1 μm or more from the homogenized tea to obtain a ground tea dispersion.

Yoshiyuki et al. teach a tea beverage made from a fine powder tea that has excellent flavor and no turbidity or dregs (Abstract). Yoshiyuki et al. teach that the tea beverage is produced by centrifuging a fine powdery tea dispersion to remove larger particles and leave particles of 1 μm or less in diameter (Abstract, [0010]).

Yutaka et al. and Yoshiyuki et al. are combinable because they are concerned with the same field of endeavor, namely, beverages made with fine powdery tea. It would have been obvious to one of ordinary skill in the art to have removed particles of 1 μm or more in diameter,

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as taught by Yoshiyuki et al. in the fine powdery tea dispersion of Yutaka et al. for the purpose of making a tea beverage with excellent flavor and clarity.

Regarding claim 16, modified Yutaka et al. disclose all of the claim limitations as set forth above. While Yutaka et al. disclose high-pressure homogenization of ground tea at 1000 kg/cm² (i.e. about 101 MPa- [0030] of partial English translation), the reference does not disclose a homogenization pressure range of about 10 MPa to about 15 MPa. As homogenization efficiency, i.e. number of passes, is a variable that can be modified among others by adjusting homogenization pressure, the precise Homogenization pressure would have been considered a result effective variable by one of ordinary skill in the art at the time of the invention. As such, without showing unexpected results, the claimed homogenization pressure cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the homogenization pressure of the high-pressure homogenization step of Yutaka et al. to obtain the desired homogenization efficiency, i.e. number of passes (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding claim 17, modified Yutaka et al. disclose all of the claim limitations as set forth above. Further, Yutaka et al. disclose wherein the ground tea is suspended in water at a density of 5% (i.e. 20 parts by weight water is added 1 part by weight of ground tea- [0032]/L1-5 of *partial English translation*).

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Regarding claim 19, modified Yutaka et al. disclose all of the claim limitations as set forth above. While the tea beverage of modified Yutaka et al. comprises a mixture of ultrafine powder tea and tea extract, the references do not explicitly disclose a blending ration between the powder tea and tea extract to be from about 1:1 to about 1:10 by weight.

Therefore, when faced with a mixture, one of ordinary skill in the art would be motivated by common sense to select a 1:1 ratio absent evidence of unexpected or surprising results. Case law holds that "[h]aving established that this knowledge was in the art, the examiner could then properly rely... on a conclusion of obviousness, 'from common knowledge and common sense of the person of ordinary skill in the art within any specific hint or suggestion in a particular reference.'" *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Regarding claim 20, modified Yutaka et al. disclose all of the claim limitations as set forth above and a beverage (Abstract- see "tea is included as tea component to provide the objective tea drink").

Regarding claim 21, modified Yutaka et al. disclose all of the claim limitations as set forth above. Given modified Yutaka et al. disclose a tea beverage substantially similar to that presently claimed, it is clear that the beverage would intrinsically display a turbidity of about 0.05 to about 0.15 at 680 nm absorbance.

9. **Claims 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yutaka et al. (JP 08-116881-PAJ Abstract, machine translation, Partial English Translation-provided by applicants) in view of Yoshiyuki et al. (JP 11-276074 – PAJ Abstract, machine translation) and Fu et al. (US 5,827,560).**

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Regarding claims 22-23 and 25-26, Yutaka et al. disclose a method for producing a tea beverage comprising the steps of (a) pulverizing tea leaves to obtain ground tea having particles the size of 125 μm or less; (b) suspending the ground tea in water at a density of 5%; (c) subjecting the ground tea with a high pressure-homogenizer, i.e. further grinding, to provide an ultrafine powder tea; and including the ultrafine powder tea as component in a tea drink (Abstract, [0019], [0030], [0032]-*partial English translation*). Yutaka et al. does **not** disclose adding antioxidant to the homogenized tea.

Yutaka et al. does not disclose removing not less than about 50% of the particles of about 1 μm or more from the homogenized tea to obtain a ground tea dispersion.

Yoshiyuki et al. teach a tea beverage made from a fine powder tea that has excellent flavor and no turbidity or dregs (Abstract). Yoshiyuki et al. teach that the tea beverage is produced by centrifuging a fine powdery tea dispersion to remove larger particles and leave particles of 1 μm or less in diameter (Abstract, [0010]).

Yutaka et al. and Yoshiyuki et al. are combinable because they are concerned with the same field of endeavor, namely, beverages made with fine powdery tea. It would have been obvious to one of ordinary skill in the art to have removed particles of 1 μm or more in diameter, as taught by Yoshiyuki et al. in the fine powdery tea dispersion of Yutaka et al. for the purpose of making a tea beverage with excellent flavor and clarity.

Further, while Yutaka et al. disclose adding water to the ground tea prior to high-pressure homogenization, the reference does not disclose adding a tea extract wherein about 5 to about 50 parts by weight of tea extract is added to 1 part by weight of the powdered tea in step (b).

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Fu et al. teach a tea extract containing soluble tannins having good color and clarity (Abstract). Further, Fu et al. teach a diluted tea beverage made from the tea extract (Examples 1-7).

Yutaka et al and Fu et al. are combinable because they are concerned with the same field of endeavor, namely, production of tea products. Given Fu et al. teach a tea drink made from tea extract, it would have been obvious to one of ordinary skill in the art at the time of the invention to have added the tea extract, taught by Fu et al. as a liquid in the high-pressure homogenization process of Yutaka et al., for the purpose of producing a final tea beverage soluble tannin that contributes tannin specific flavor components.

Given Yutaka et al. disclose suspending ground tea in water at a density of 5% (i.e. 20 parts water to 1 part ground tea), since Fu et al. is used to teach a liquid replacement, i.e. tea extract, for the water in Yutaka et al., it necessarily follows wherein about 20 parts tea extract is added to 1 part of the ground tea.

Regarding claim 24, modified Yutaka et al. disclose all of the claim limitations as set forth above. While Yutaka et al. disclose high-pressure homogenization of ground tea at 1000 kg/cm² (i.e. about 101 MPa- [0030] of partial English translation), the reference does not disclose a homogenization pressure range of about 10 MPa to about 15 MPa. As homogenization efficiency, i.e. number of passes, is a variable that can be modified among others by adjusting homogenization pressure, the precise Homogenization pressure would have been considered a result effective variable by one of ordinary skill in the art at the time of the invention. As such, without showing unexpected results, the claimed homogenization pressure cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the

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invention was made would have optimized, by routine experimentation, the homogenization pressure of the high-pressure homogenization step of Yutaka et al. to obtain the desired homogenization efficiency, i.e. number of passes (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding claim 27, modified Yutaka et al. disclose all of the claim limitations as set forth above and a beverage (Abstract- *see* “tea is included as tea component to provide the objective tea drink”).

Regarding claim 28, modified Yutaka et al. disclose all of the claim limitations as set forth above. Given modified Yutaka et al. disclose a tea beverage substantially similar to that presently claimed, it is clear that the beverage would intrinsically display a turbidity of about 0.05 to about 0.15 at 680 nm absorbance.

Response to Arguments

10. Applicant's arguments filed February 18, 2010 have been fully considered but they are not persuasive.

Applicants explain that the removing step of amended claim 14 recites “removing not less than about 50% of the particles of about 1 um or more from the powdered tea in diameter to obtain a ground tea dispersion without adding an antioxidant prior to removing the particles.” Applicants submit that Yoshiyuki et al. fails to teach the claimed removing step and “requires an

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essential step of adding antioxidant prior to removing large particles of powder tea to obtain a tea beverage that is free from non-uniform turbidity or precipitation.”

First, it is the Examiner’s position that Yoshiyuki et al. do teach removing particles of about 1 μm or more from a powdered tea. Specifically, Yoshiyuki et al. teaches centrifuging and removing large-grain ingredients of a fine powder green tea (Abstract) wherein the average particle diameter of the centrifuged product being 1 μm or less. Given, Yoshiyuki et al. teaches and average particle diameter of the particles being 1 μm or less, it is clear that not less than 50% of the particles of greater than 1 μm are removed .

Second, with regards to antioxidant, the primary reference, Yutaka et al., does *not* disclose adding an antioxidant to the pulverized tea. It is the Examiner's position, given Yutaka et al. does not teach the addition of an antioxidant, the limitations of claim 14 (c) and 22 (c) have been met. Further, while Yoshiyuki et al. teach adding an antioxidant to the tea prior to centrifugation, Yoshiyuki et al. is used only to teach centrifuging a fine powder tea dispersion to remove large particles and leaving particles of 1 μm or less in diameter for the purposes of making a tea beverage with excellent flavor and no turbidity or dregs (Abstract, [0010]). One of ordinary skill in the art would have recognized that removing decreasing particle size by removing large particles would improve clarity and flavor. While Yoshiyuki et al. teach a tea beverage that is “free from nonuniform turbidity or precipitation,” the reference does not teach or suggest that the antioxidant is responsible for this result.

Applicants argue that Yutaka et al. does not teach the tea-extract adding/grinding step of claim 22 - specifically "adding a tea extract to the powdered tea and further grinding the powdered tea." Applicants note that Yutaka teach that "powdered tea leaves are suspended in

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water or water containing crystalline cellulose and treated with a NANOMIZER to obtain fine ground tea suspension. Therefore, Applicants find that Yutaka teaches a liquid suspension.

Here, Yutaka et al. teach suspending ground tea in water and subjecting the ground to high pressure-homogenization, i.e. further grinding. While Yutaka et al. discloses further grinding a tea dispersion of water and ground tea, the reference does not disclose blending the ground tea dispersion with a tea extract. Instead, Fu et al. is used to teach a diluted tea beverage made from tea extract containing soluble tannins having a good color (Abstract). It would have been obvious to one of ordinary skill in the art to have blended the extract, taught by Fu et al. with the ground tea of modified Yutaka et al. for the purpose of producing a tea beverage with good color, clarity and tannin specific flavor components. Further, the tea extract could be used to disperse the ground tea prior to homogenization.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH GWARTNEY whose telephone number is (571)270-3874. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. G./

Examiner, Art Unit 1781

/Keith D. Hendricks/

Supervisory Patent Examiner, Art Unit 1781